

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 30 January 2001 (30.01.01)	
International application No. PCT/IT99/00160	Applicant's or agent's file reference FI/X11855/PC
International filing date (day/month/year) 04 June 1999 (04.06.99)	Priority date (day/month/year)
Applicant LOI, Pasqualino et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
10 November 2000 (10.11.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Olivia TEFY Telephone No.: (41-22) 338.83.38
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PCT

REC'D 07 SEP 2001

WIPO PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FI/X11855/PC		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IT99/00160	International filing date (day/month/year) 04/06/1999	Priority date (day/month/year) [04/06/1999]	
International Patent Classification (IPC) or national classification and IPC A01K67/027			
Applicant ISTITUTO ZOOTECNICO E CASEARIO PER LA SARDEGNA			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 4 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input checked="" type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input checked="" type="checkbox"/> Certain observations on the international application 			
Date of submission of the demand 10/11/2000		Date of completion of this report 03.09.2001	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized officer Mundel, C Telephone No. +49 89 2399 7314 	

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IT99/00160

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-24 as originally filed

Claims, No.:

1-37 as received on 27/07/2001 with letter of 26/07/2001

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IT99/00160

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

II. Priority

1. ☐ This report has been established as if no priority had been claimed due to the failure to furnish within the prescribed time limit the requested:
- ☐ copy of the earlier application whose priority has been claimed.
 - ☐ translation of the earlier application whose priority has been claimed.
2. ☐ This report has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid.

Thus for the purposes of this report, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:
see separate sheet

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-33
	No:	Claims	34-37
Inventive step (IS)	Yes:	Claims	1-33
	No:	Claims	34-37
Industrial applicability (IA)	Yes:	Claims	1-27 and 34-37 (see Citations and explanations)
	No:	Claims	28-33 (see Citations and explanations)

2. Citations and explanations
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IT99/00160

Re Item II

Priority

The priority document of the present application was not available at the time where this preliminary opinion has been drafted. The present analysis is based on the hypothesis that all the claims have a priority right corresponding to the date of filing of the priority document (04.06.99).

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The present application refers to a process for "reconstructing an animal embryo", a process for "preparing an animal" and to animals obtained by said processes.
2. **Reference is made to the following documents :**
 - D1: WO 94 18344 A (UNIV BRANDEIS) 18 August 1994 (1994-08-18)
 - D2: WO 97 07669 A (CAMPBELL KEITH HENRY STOCKMAN ;ROSLIN INST EDINBURGH (GB); WILMUT) 6 March 1997 (1997-03-06)
 - D3: WO 99 21415 A (STEM CELL SCIENCES PTY LTD ;BIOTRANSPLANT INC (US)) 6 May 1999 (1999-05-06)
 - D4: WO 98 39416 A (STRELCHENKO NIKOLAI S ;INFIGEN INC (US); PACE MARVIN M (US); JURGE) 11 September 1998 (1998-09-11)
 - D5: WO 98 57538 A (PRATHER RANDALL S ;UNIV MISSOURI (US); MACHATY ZOLTAN (US)) 23 December 1998 (1998-12-23)
 - D6: CHASTANT S ET AL: 'QUANTITATIVE CONTROL OF GENE EXPRESSION BY NUCLEOCYTOPLASMIC INTERACTIONS IN EARLY MOUSE EMBRYOS: CONSEQUENCE FOR REPROGRAMMATION BY NUCLEAR TRANSFER' MOLECULAR REPRODUCTION AND DEVELOPMENT,US,NEW YORK, NY, vol. 44, no. 4, 1 August 1996 (1996-08-01), pages 423-432.
3. New claims 1-37 filed with the letter of 26.07.01 are allowable under articles 19(2) and 34(2)(b) PCT.

The arguments filed by the applicant with the letter of 26.07.01 have been taken into account for drafting the present IPER

4. Novelty; article 33(2) PCT.

4.1 Numerous transgenic mammals or even ungulates are well-known in the art. Due to the clarity problem mentioned in point VIII-2 of the present application, the subject-matter of claims 34-37 can not be considered as novel in the sense of article 33(2) PCT.

4.2 The subject-matter of claims 1-33 has never been disclosed in the documents cited in the International Search Report (ISR). Therefore, claims 1-33 are considered as novel in the sense of article 33(2) PCT.

5. Inventive step; article 33(3) PCT.

Processes for cloning animals by transferring the nucleus of a donor cell -which can provide from a cell culture - in an enucleated receiving cell were well-known in the art as exemplified in documents D1 to D6. It was also known that said processes could be used for the generation of transgenic animals and it was known that the chromatin had to be modified. However, none of the documents D1 to D6 refers to the step of denaturation of the chromatin disclosed in the present application.

Therefore, claims 1-33 have to be considered as inventive in the sense of article 33(3) PCT.

6. Industrial applicability; article 33(4) PCT.

For drafting the present communication, the subject-matter of claims 1-33 has been considered as a process for transferring the chromatin of a donor cell in a receiving cell. Therefore, said claims have not been considered as methods of treatment of the human or animal body.

Claims 28-33 are considered as methods of treatment of the human or animal

body. For the assessment of the present claims 28-33 on the question whether they are industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

Re Item VIII

Certain observations on the international application

Lack of clarity; article 6 PCT.

1. In claim 3, it is not clear what the "melting temperature of the transcriptional regulatory proteins" should exactly be what renders the scope of the claim unclear.
2. A process feature in a product claim can only be relied on for establishing novelty over the prior art, where use of that process necessarily means that the product has a particular characteristic and the skilled person following the teaching of the application would inevitably achieve that characteristic, would be aware of the characteristic, and would discard any product not having it. The attention of the applicant is also drawn to the fact that for a product by process claim, no unified criteria exist in PCT. The EPO, for example, will allow these claims only if the product as such fulfils the requirement for patentability (inter alia that they are new and inventive) **and** there is no other information available in the application which could have enabled the Applicant to define the product satisfactorily by reference to its composition, structure or some other testable parameter.
The IPEA is the opinion that most of the "reconstructed animal embryo" encompassed by claim 34 will not be distinguishable from the corresponding "natural" embryos.
This remark also applies to the animal of claim 35.
This remark also applies to the transgenic animals of claims 36 and 37 which will not be distinguishable from transgenic animals obtained by other technics.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IT99/00160

3. Claim 8 refers to the process according to claim 1 to 7 wherein the donor cell is collected from a single individual . It is not apparent for the IPEA how a single cell could be collected from more than one single individual. Therefore, claim 8 appears to be redundant with claims 1-7.
4. Claim 18 refers to a process according to anyone of claims 1 to 17 wherein said donor cell is in G1 or G0 phase. The attention of the applicant is drawn to the fact that claims 2-17 are dependent on claim 1 which stipulate that the donor cell is a G1 or G0 cell. Therefore, claim 18 is redundant with claim 1.
5. Claim 19 refers to a process according to anyone of claims 1 to 18 wherein the donor cell is in M phase. As mentioned in point VIII-3 above, according to claim 1, the donor cell should always be in the G1 or G0 phase. Therefore, said cell can not also be in M phase.

M-H

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference FI/X11855/PC	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/IT 99/ 00160	International filing date (day/month/year) 04/06/1999	(Earliest) Priority Date (day/month/year)
Applicant ISTITUTO ZOOTEKNICO E CASEARIO PER LA SARDEGNA		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures.

INTERNATIONAL SEARCH REPORT

international application No.

PCT/IT 99/00160

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 1-44 are directed to methods of surgery/treatment practiced on the human/animal body, the search has been carried out and based on the alleged effects of the procedures.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/99/00160

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A01K67/027

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94 18344 A (UNIV BRANDEIS) 18 August 1994 (1994-08-18) page 7, paragraph 3; page 58, line 19 - page 60 -line 3 examples 11-13 ---	1, 2, 8, 11, 12, 20-23, 29, 32, 38, 45, 46
A	WO 97 07669 A (CAMPBELL KEITH HENRY STOCKMAN ;ROSLIN INST EDINBURGH (GB); WILMUT) 6 March 1997 (1997-03-06) ---	1-48
A	WO 99 21415 A (STEM CELL SCIENCES PTY LTD ;BIOTRANSPLANT INC (US)) 6 May 1999 (1999-05-06) page 18, line 11 - line 15 ---	1-48
-/--		

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

2 March 2000

Date of mailing of the international search report

09/03/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Lonnoy, 0

INTERNATIONAL SEARCH REPORT

International Application No

PCT 99/00160

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98 39416 A (STRELCHENKO NIKOLAI S ;INFIGEN INC (US); PACE MARVIN M (US); JURGE) 11 September 1998 (1998-09-11) figure 1 ---	1-48
A	WO 98 57538 A (PRATHER RANDALL S ;UNIV MISSOURI (US); MACHATY ZOLTAN (US)) 23 December 1998 (1998-12-23) ---	1-48
A	CHASTANT S ET AL: "QUANTITATIVE CONTROL OF GENE EXPRESSION BY NUCLEOCYTOPLASMIC INTERACTIONS IN EARLY MOUSE EMBRYOS: CONSEQUENCE FOR REPROGRAMMATION BY NUCLEAR TRANSFER" MOLECULAR REPRODUCTION AND DEVELOPMENT, US, NEW YORK, NY, vol. 44, no. 4, 1 August 1996 (1996-08-01), pages 423-432, XP000750072 -----	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IT 99/00160

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 1-44 are directed to methods of surgery/treatment practiced on the human/animal body, the search has been carried out and based on the alleged effects of the procedures.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT 99/00160

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9418344	A	18-08-1994	US 5480772 A CA 2155309 A EP 0686202 A US 5651992 A US 5773217 A	02-01-1996 18-08-1994 13-12-1995 29-07-1997 30-06-1998
WO 9707669	A	06-03-1997	AU 6831096 A CA 2229568 A CN 1202084 A CZ 9800608 A EP 0849990 A EP 0930009 A GB 2318578 A, B GB 2331751 A, B HU 9900234 A NO 980845 A NZ 316149 A PL 325331 A	19-03-1997 06-03-1997 16-12-1998 15-07-1998 01-07-1998 21-07-1999 29-04-1998 02-06-1999 28-05-1999 29-04-1998 28-10-1999 20-07-1998
WO 9921415	A	06-05-1999	AU 1581899 A	17-05-1999
WO 9839416	A	11-09-1998	AU 6688098 A EP 0973871 A US 6011197 A	22-09-1998 26-01-2000 04-01-2000
WO 9857538	A	23-12-1998	AU 7979098 A	04-01-1999

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 December 2000 (14.12.2000)

PCT

(10) International Publication Number
WO 00/74477 A1

- (51) International Patent Classification⁷: A01K 67/027
- (21) International Application Number: PCT/IT99/00160
- (22) International Filing Date: 4 June 1999 (04.06.1999)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (*for all designated States except US*): ISTITUTO ZOOTEKNICO E CASEARIO PER LA SARDEGNA [IT/IT]; Frazione Tottubella, I-07040 Olmedo (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): LOI, Pasqualino [IT/IT]; Strada Statale SS-Fertilia, I-07100 Sassari (IT). CAPPAL, Pietro [IT/IT]; 29, Via Bellini, I-07100 Sassari (IT).
- (74) Agents: BARDINI, Marco, Luigi et al.; Società Italiana Brevetti S.p.A., 25, Corso dei Tintori, I-50122 Firenze (IT).
- (81) Designated States (*national*): AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:
— With international search report.
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



WO 00/74477 A1

(54) Title: PROCESS FOR RECONSTRUCTING A NON-HUMAN ANIMAL EMBRYO BY NUCLEAR TRANSFER AND PREPARING THE ANIMAL THEREFROM, AND EMBRYOS AND ANIMALS OBTAINED THEREBY

(57) Abstract: This invention relates to the generation of animals by the transfer of somatic cells which have been denatured preferably by heating, into enucleated metaphase II oocytes. This invention may be useful for the cloning of mammals including but not being limited to genetically selected and/or transgenic animals.

INTERNATIONAL SEARCH REPORT

Inventor's Application No

PCT/US 98/04345

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N5/06 C12N5/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE WPI Section Ch, Week 9349 Derwent Publications Ltd., London, GB; Class B04, AN 93-391732 XP002073143 & JP 05 292 958 A (SHINGIJUTSU JIGYODAN) , 9 November 1993 see abstract	1,2,6, 10,11
X	STRELCHENKO N: "BOVINE PLURIPOTENT STEM CELLS" THERIOGENOLOGY, vol. 45, 1996, LOS ALTOS US, pages 131-140, XP000199313 cited in the application see page 133 - page 138 ----- -/--	1-5,7, 9-15, 19-30

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

30 July 1998

Date of mailing of the international search report

12/08/1998

Name and mailing address of the ISA

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NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

De Kok, A

IN NATIONAL SEARCH REPORT

International Application No

PCT/US 98/04345

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